

Berkeley County, West Virginia Financing for Source Water Assessment and Protection

2003 USEPA National Source
Water Protection Conference
Washington, D.C.

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The Conservation Fund Freshwater Institute

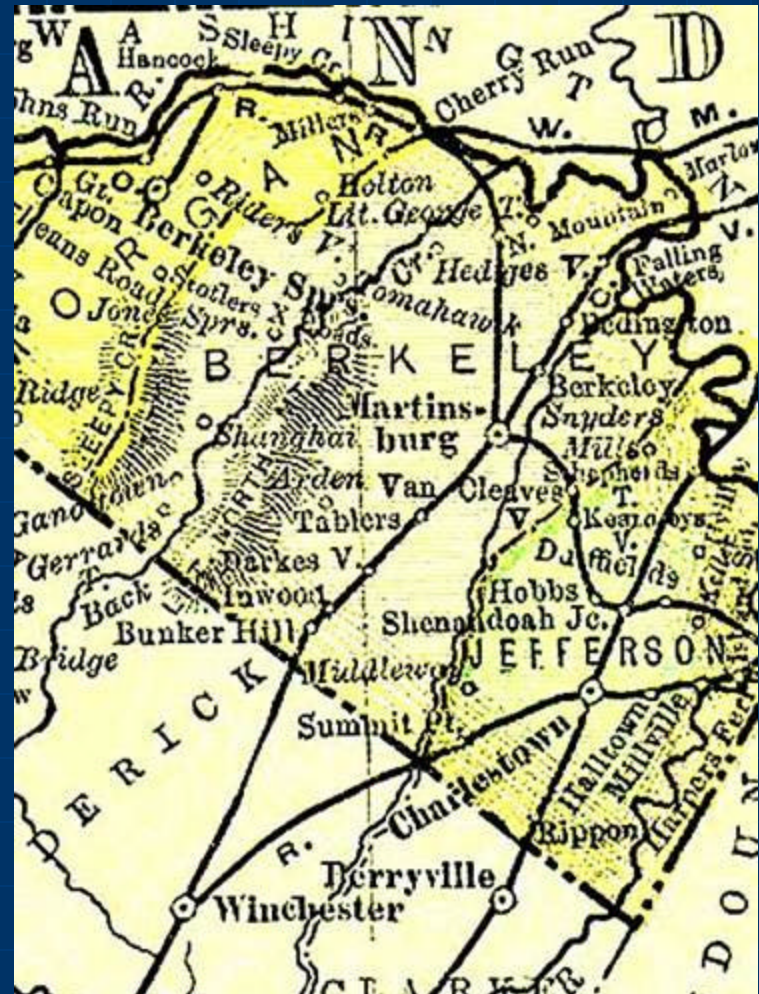
Context for the project

- ◆ Geography and geology
- ◆ Sustainable economic growth concern
- ◆ Resource vulnerability
- ◆ Drought as driving force



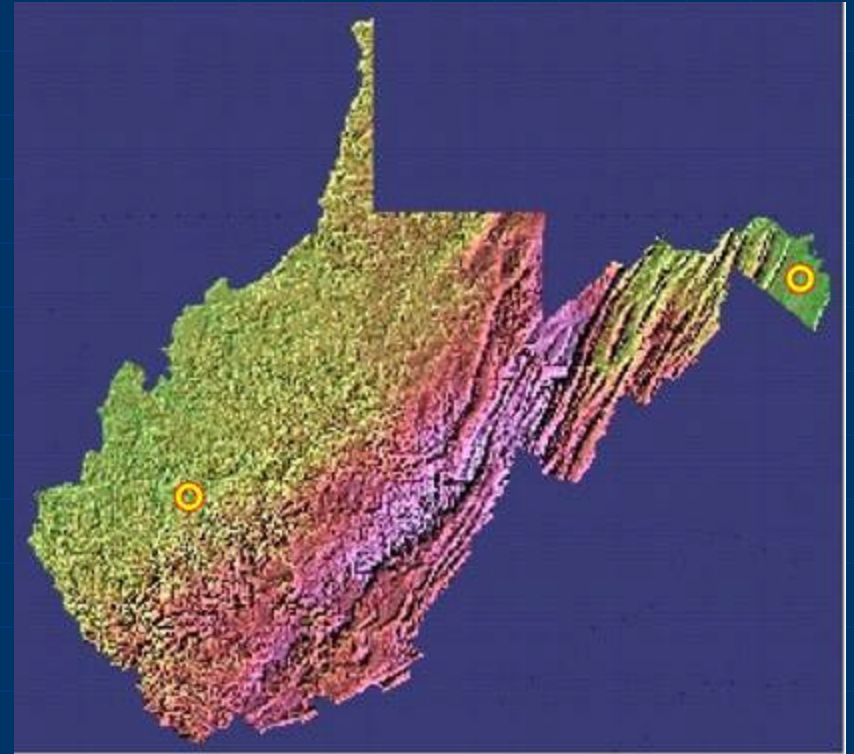
Geography and geology

- ◆ Berkeley County is the second oldest county in the state
- ◆ Martinsburg, the county seat, was incorporated in 1778



Geography and geology

- ◆ Berkeley County is in the Eastern Panhandle of West Virginia
- ◆ Physically distant from the state capital and the traditional focus of political and environmental action



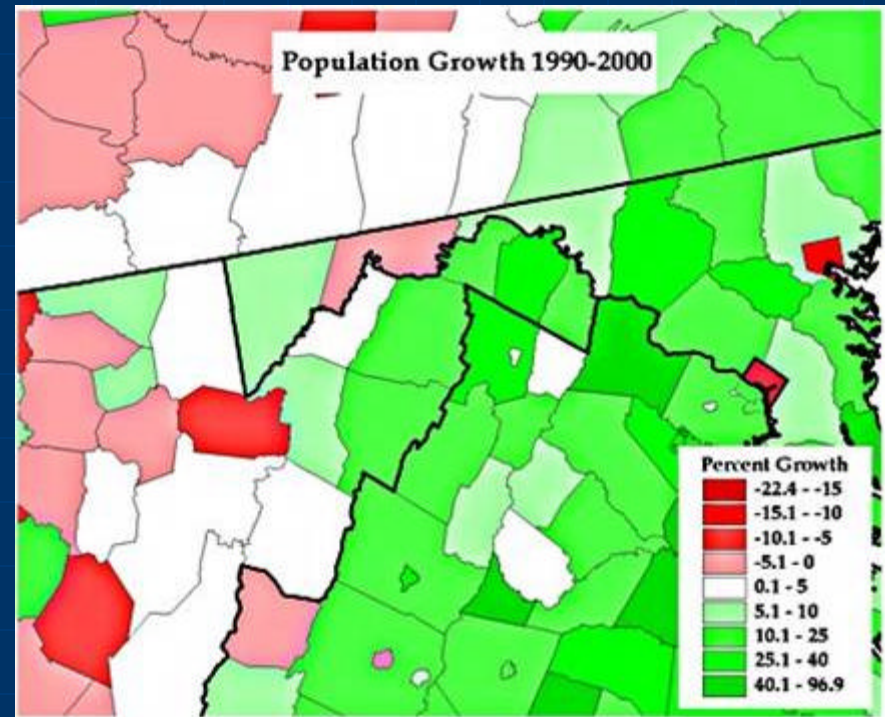
Sustainable economic growth

Berkeley County, WV			
Population by Decades			
Date	Population	Population Change	% Change
1900	19,469	-	-
1910	21,999	2,530	1.2
1920	24,554	2,555	1.1
1930	28,030	3,476	1.3
1940	29,016	986	0.3
1950	30,359	1,343	0.5
1960	33,791	3,432	1.1
1970	36,356	2,565	0.7
1980	46,775	10,419	2.6
1990	59,253	12,478	2.4
2000	75,905	16,652	2.5
Source: U.S. Census Bureau, 2000			

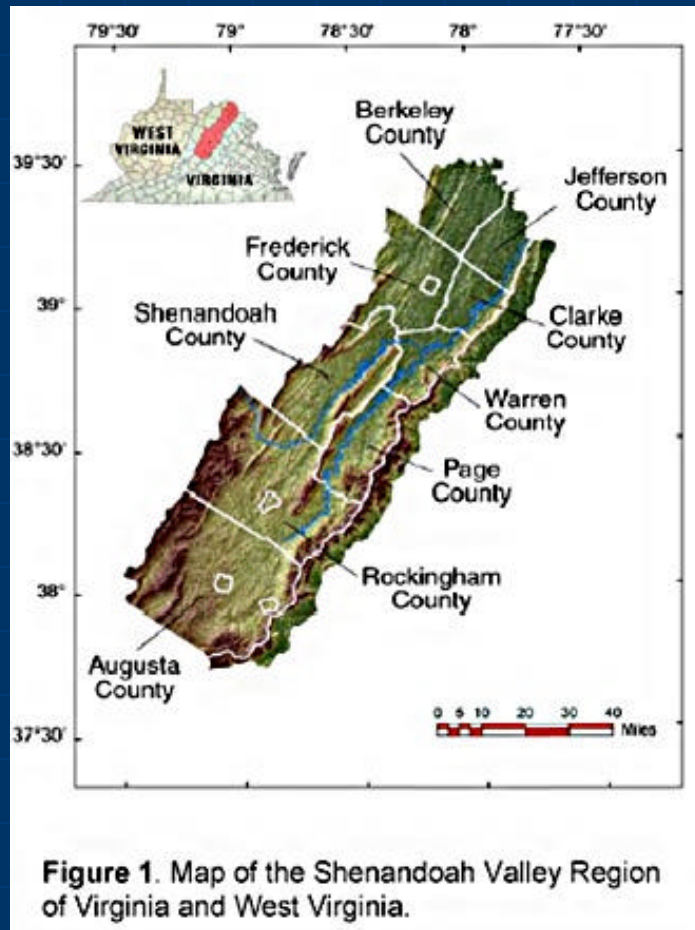
- ◆ Berkeley County is the fastest growing county in the state with 28% growth in last decade
- ◆ Population expected to double by 2020

Sustainable economic growth

- ◆ Surrounding counties have restricted economic development due to water infrastructure limitations
- ◆ Eastern panhandle has the opportunity to create a sustainable advantage if we plan and build correctly

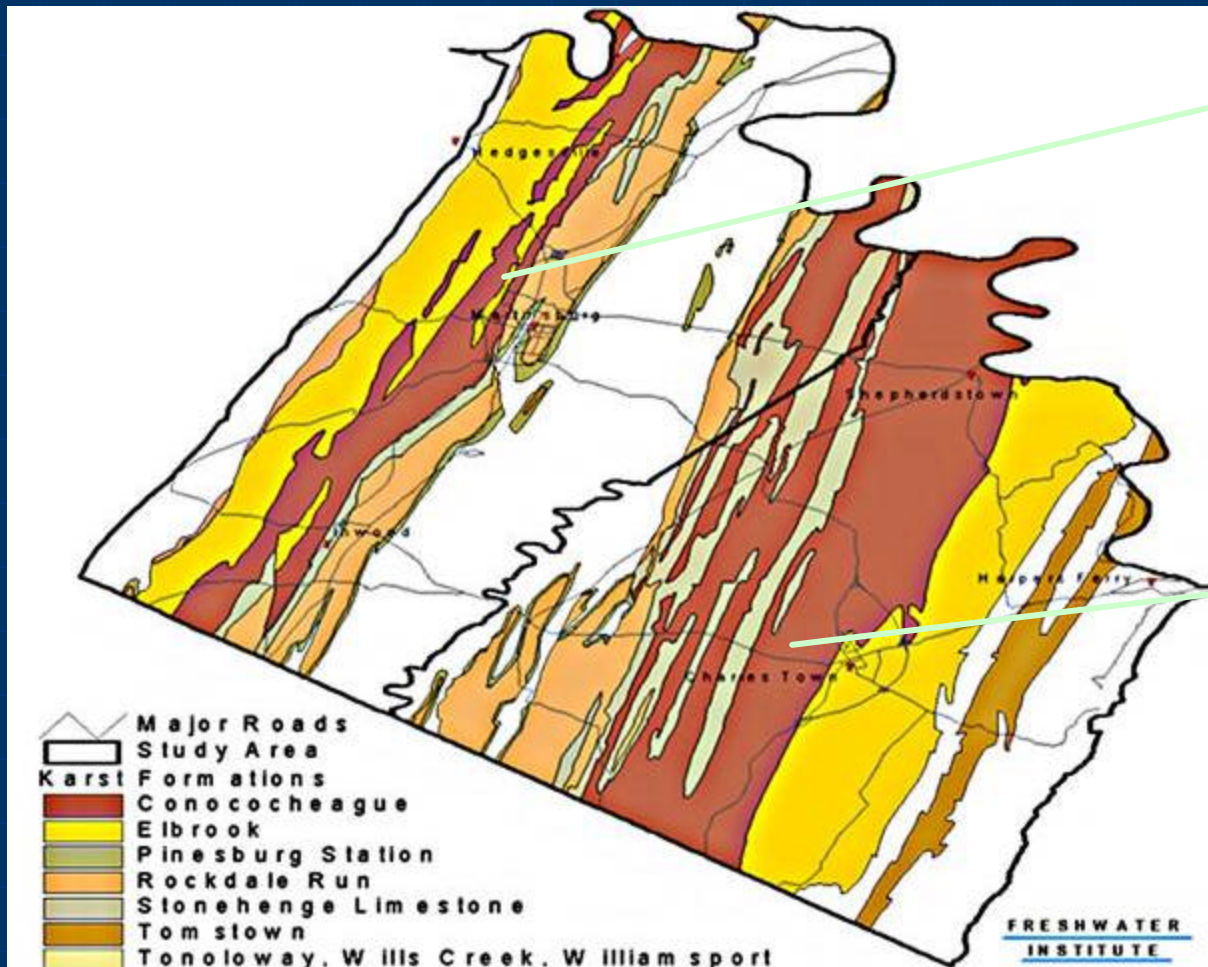


Resource vulnerability



- ◆ County underlain by karst limestone geology
- ◆ Geologic features of fractures, faults, sinkholes and solution conduits create a high yield aquifer but also allow rapid, easy contamination

Karst geology study area map



Berkeley County
~40% karst area
~60% ground water supply
~50% on-site waste treatment

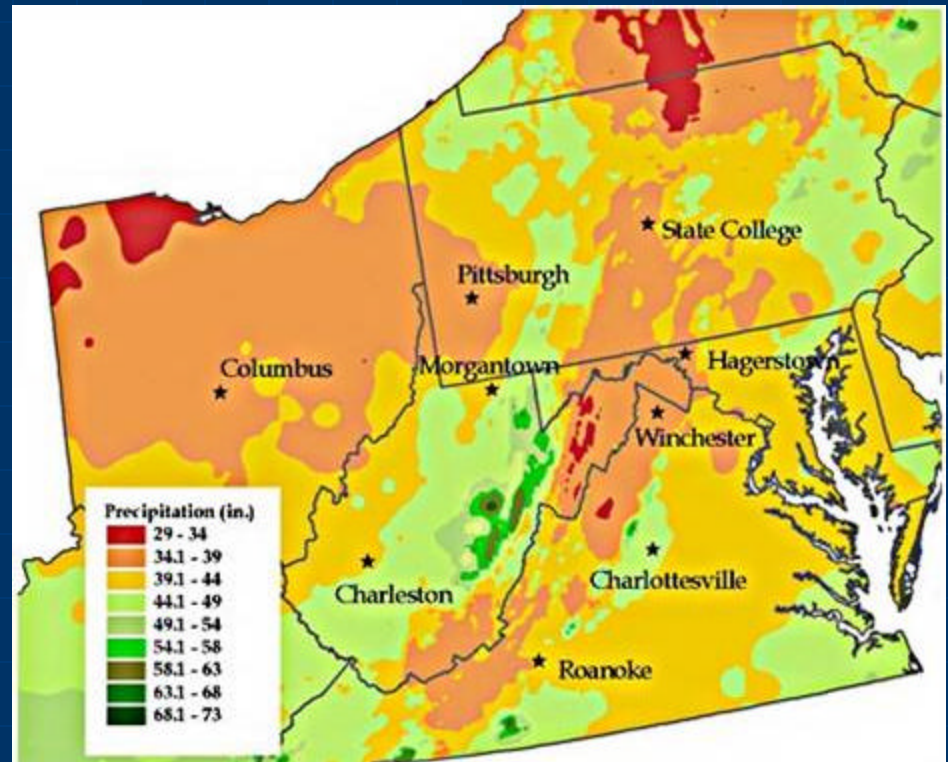
Jefferson County
~80% karst area

Drought as a driving force

- ◆ “We know the true value of water when the well runs dry.”

Ben Franklin-
from Poor Richard's Almanac

- ◆ The importance of a galvanizing issue should not be underestimated



Stone Soup approach to SWP

- ◆ A phased approach got the pot boiling by providing background and scientific information
- ◆ The drought was our stone
- ◆ A second phase invited stakeholder groups, technical resources, NGOs and funding resources to the table for planning and discussion



The stock is thickened

- ◆ Strong committee participation from nearly thirty institutional players including county, state and federal agencies; universities and colleges; construction, real estate and development associations; watershed groups and environmental non-profits; and concerned citizens

The stock is thickened



- ◆ Groundbreaking studies are initiated by partners in-state and out-of-state that bring to bear leveraging resources, technical capacity and the excitement of momentum to the project

The stock is thickened



- ◆ \$132K Fracture Trace Analysis – USGS
with local match of \$96K
- ◆ \$480K Bacterial Source Tracking – USGS
with local match of \$20K
- ◆ \$20K SWA Technical Assistance – EPA
- ◆ \$250K Water Resources Assessment – WVSCA
- ◆ \$22K Hydrologic Impacts of Quarries – WVU
with \$11K local match

The stock is thickened



- ◆ Partners and collaborators have submitted over \$750K of additional applications for research, community education, plan implementation and capacity building funding
- ◆ Berkeley County task force project is perceived to be leading by example by other regional efforts
- ◆ Credibility and initial success brings additional networking, collaboration and funding opportunities

Substitutions



- ◆ Farmland protection – get source water criteria into ranking process for selection
- ◆ Storm water PSD and 319 BMPs – consider water reclamation and reuse opportunities, protect groundwater through appropriate injection well design
- ◆ Business partners – seek support for EMS protocols that protect ground and surface water quality
- ◆ Supply and drought – seek local and state regulations that promote conservation and encourage reuse
- ◆ Homeland Security, HAZMAT and Project Impact – consider and implement awareness plans and reaction capacity for water supply protection

Secret ingredients



- ◆ Financing isn't the first step, so don't wait for the money
- ◆ Process can start without a full understanding of who may be involved later
- ◆ Use the issues of the day to advantage, don't be overtaken by events
- ◆ Understand that the value of clean water and the price of clean water are two different things, make sure that the community accounting includes the full value of actions and non-actions

Keys to SWP financing

- ◆ “Stone soup is really very simple if only you remember to add something good to it.”
- ◆ Catalysis alone will fail
- ◆ Common need (vision) must be supported by a pooling of adequate community resources and unique capacities



Making Stone Soup
Walter Melion, age 19
Santa Cruz, California
Stone Soup Museum Collection

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Berkeley County Soup
Company